

REMARKS

Favorable reconsideration of this application, in light of the following discussion, is respectfully requested.

Claims 1-7, 9-18 and 20-26 are currently pending. No claims have been amended herewith.

In the outstanding Office Action, Claims 1-7, 9-18, 20-23, 25, and 26 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 7,082,107 to Arvelo (hereinafter “the ‘107 patent”); and Claim 24 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘107 patent in view of U.S. Patent Application Publication No. 2004/0032853 to D’Amico et al. (hereinafter “the ‘853 application”).

Applicants wish to thank the Examiner for the interview granted Applicants’ representative on June 6, 2007, at which time the outstanding rejections of Claims 1 and 2 were discussed. At the conclusion of the interview, the Examiner agreed to reconsider the rejection of the claims in light of the discussion. However, no agreement was reached regarding the patentability of the claims, pending the Examiner’s further consideration of the claims upon formal submission of a response to the outstanding Office Action.

Claim 1 is directed to a method of deciding a transmit power level carried out by a wireless terminal in a mobile communication system, comprising the steps of: (1) deciding a multiple number of uplink control signals by counting a multiplex number of downlink control signals corresponding thereto; and (2) deciding a transmit power level according to the decided multiplex number of uplink control signals.

Applicants respectfully traverse the rejection of Claim 1 as anticipated by the ‘107 patent.

The ‘107 patent is directed to a system for controlling the power level of a wireless transmission based on whether a number of packets in an observation time window exceeds a

predetermined threshold. As shown in Figure 3, the '107 patent discloses a system in which a transmitter 310 counts the negative acknowledgement (NACK) messages 340 in both a short and long observation window and compares the number of errors to respective thresholds. If the power level of the transmitter 310 needs to be adjusted to achieve the desired signal quality, the transmitter 310 either increases or decreases the power level based on the number of errors counted. Further, the '107 patent discloses that, in the open loop form, the receiver does not decide when the power level needs to be adjusted, but the transmitter decides for itself when to adjust the power.

However, Applicants respectfully submit that the '107 patent fails to disclose the step of deciding a multiplex number of uplink control signals by counting the multiplex number of downlink control signals corresponding thereto, as recited in amended Claim 1. In this regard, Applicants refer the Examiner to the non-limiting example of Step 103 in Figure 4 and the frames illustrated in Figure 3. The '107 patent merely discloses the counting of the number of negative acknowledgement messages sent from the receiver in a particular observation time window and compares the count to a predetermined threshold. The '107 patent does not disclose counting the number of downlink control signals corresponding to multiplex number of uplink control signals. Further, the '107 patent does not disclose that the number of uplink control signals is decided by counting a multiplex number of downlink control signals corresponding thereto, as recited in Claim 1. As previously stated, Applicants note that the method of Claim 1 is carried out by a wireless terminal, which appears to correspond to the receiver 320 disclosed in Figure 3 of the '107 patent. However, the '107 patent discloses that the transmitter 310 determines the transmit power level.

Accordingly, for the reasons stated above, Applicants respectfully submit that Claim 1 patentably defines over the '107 patent.

Independent Claims 3, 6, and 17 recite limitations analogous to the limitations recited in Claim 1. Accordingly, for reasons analogous to the reasons stated above for the patentability of Claim 1, Applicants respectfully traverse the rejection of Claims 3, 6, and 17 (and all associated dependent claims) as anticipated by the '107 patent.

Claim 2 is directed to a method of deciding a transmit power carried out by a wireless terminal in a mobile communications system, comprising: (1) estimating a quality of an uplink control signal by determining whether a base station correctly received at least one of acknowledgement and negative acknowledgement information signals transmitted by the wireless terminal; and (2) deciding a transmit power level according to the estimated quality of the uplink control signal.

As discussed above, the '107 patent is directed to a system in which a transmitter counts the number of negative acknowledgement messages received from a receiver of a predetermined observation time window and compares the number of errors to a predetermined threshold. Based on the results of the comparison, the transmitter 310 and the '107 system adjusts the transmit power level.

However, Applicants respectfully submit that the '107 patent fails to disclose the step of estimating the quality of an uplink control signal by determining whether a base station correctly receives at least one of acknowledgement and negative acknowledgement information signals transmitted by the wireless terminal, as recited in Claim 2. Rather, the '107 patent merely counts the number of negative acknowledgement signals received from the receiver. The '107 patent does not disclose that a determination is made by the receiver 320 (who sent the negative acknowledgment signals) as to whether the transmitter 310 correctly received the negative acknowledgement or acknowledgement signals sent by the receiver 320. In this regard, in a non-limiting example, Applicants respectfully submit that the flowcharts shown in Applicants Figure 7A and 7B illustrate this claimed method. As

shown in Steps 205-215, the present system determines, at the wireless terminal, whether the base station correctly received either the negative acknowledgement signal or the acknowledgement signal previously sent by the wireless terminal to the base station.

Applicants respectfully submit that the '107 patent does not teach or suggest such a limitation. Rather, the '107 patent merely discloses that the transmitter 310 counts the number of negative acknowledgement signals sent by the receiver. The '107 patent does not disclose that the receiver 320 has any way of determining whether the transmitter 310 received the negative acknowledgement signal 340, for example, sent by the receiver 320 to the transmitter 310. Accordingly, for the reasons stated above, Applicants respectfully traverse the rejection of Claim 2 as anticipated by the '107 patent.

Independent Claims 4, 5, 11, 22, and 26 recite limitations analogous to the limitations recited in Claim 2. Accordingly, for reasons analogous to the reasons stated above for the patentability of Claim 2, Applicants respectfully traverse the rejections of Claims 4, 5, 11, 20, and 26 (and all similarly rejected dependent claims) as anticipated by the '107 patent.

Regarding the rejection of dependent Claim 24 under 35 U.S.C. § 103(a), Applicants respectfully submit that the '853 application fails to remedy the deficiencies of the '107 patent, as discussed above. Accordingly, Applicants respectfully submit that a *prima facie* case of obviousness has not been established and that the rejection of Claim 24 should be withdrawn.

Thus, it is respectfully submitted that independent Claims 1-6, 11, 17, 22, and 26 (and all associated dependent claims) patentably define over any proper combination of the '107 patent and the '853 application.

Consequently, in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The present application is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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